



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,018	12/26/2001	Atsushi Ikeda	217704US	5941
22850	7590	03/26/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			GOINS, DAVETTA WOODS	
			ART UNIT	PAPER NUMBER
			2632	
			DATE MAILED: 03/26/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/019,018

Applicant(s)

IKEDA ET AL.

Examiner

Davetta W. Goins

Art Unit

2632

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-15 and 20-22 is/are allowed.
- 6) ☒ Claim(s) 1-5, 9-11 and 16-18 is/are rejected.
- 7) ☒ Claim(s) 6, 8 and 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION**

***Allowable Subject Matter***

1. Claims 13-15 and 20-22 are allowed.
2. Claims 6, 8, 12 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5, 7, 9, 10, are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuo (US Pat. 6,320,185 B1) in view of Busch (US Pat. 5,612,544) in view of Rieder et al. (US Pat. 5,332,895).

In reference to claims 1-5, 7, 9, 10, 16, Matsuo discloses the claimed the claimed rotating body, sensor for detecting the rotating body, a camera for imaging a part of the rotating body, a display section, which is met by a pinhole disk 21 having a number of holes 211, a photodetector element 24 is used to detect the location of the pinholes as they rotate about the disk; a CCD camera 26 picks up an observation image of a sample and outputs an NTSC type image signal representing a screen image to be displayed on a monitor (col. 1-41). Matsuo does not disclose

Art Unit: 2632

the claimed marker for the rotating body. Busch discloses a measuring device with an integrated light scanning means that scan the rotating body to detect the mark 22 located on the rotating shaft 23 and provide a means to measure the location of the mark 22; the measurement is done by a light beam scanning means (col. 2, lines 14-64). Matsuo does not disclose the claimed second rotating body with a second mark. Rieder discloses an angle encoder with two disks 1 and 5 each with detectors 9 and 10 that detect the serial bar codes 7 and 8 by use of illuminating means 11 and 12; the movement from the absolute position is measured and the resulting signals are displayed on a display unit 16 (col. 5, lines 48-68; col. 6, lines 1-27). Since Matsuo discloses a rotating body with a means for detecting the rotation of the moving body by detection of the pinhole located on the body then transmitting the information to a rotational angle measurement device such that it's signal can be displayed, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a marker, as disclosed by Busch, and a second rotating body, as disclosed by Rieder, as a means for ensuring that rotational angle can be compared with another rotating body and visually determine whether the rotating bodies are rotating at the same speed.

In reference to claims 10, 11, 17, 18, Matsuo discloses the claimed calculating section, and alarm means, which is met by the phase sync circuit 25 receiving the sync from the video cameral and generating a pulse and then display the image signals on monitor 51; the signal coming from the computer 50 as a differential arithmetic image (col. 10, lines 56-67; col. 11-16).

Art Unit: 2632


5. The prior art of record and not relied upon is considered pertinent to the applicant's disclosure as follows. Mehnert (US Pat. 4,449,191) and Nomura et al. (US Pat. 5,821,531), which disclose phase angle measuring devices.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Davetta W. Goins whose telephone number is 703-306-2761. The examiner can normally be reached on Mon-Fri with every other Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on 703-308-6730. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Davetta W. Goins  
Primary Examiner  
Art Unit 2632

  
D.W.G.

March 17, 2004